

# Managing Unfunded Pension Liabilities in a Difficult Environment



## Unfunded Pension Liabilities

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**C.D.I.A.C. PRE- CONFERENCE WORKSHOP**

**September 12, 2004**

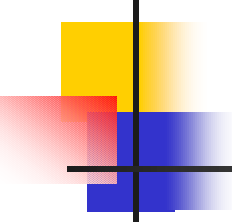
**Bill Pollacek**

**Treasurer-Tax Collector**

**Contra Costa County**

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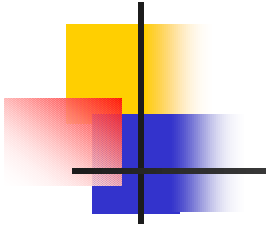
**email: [bpoll@tax.cccounty.us](mailto:bpoll@tax.cccounty.us)**



If you learn anything about pension and retirement systems, it is:

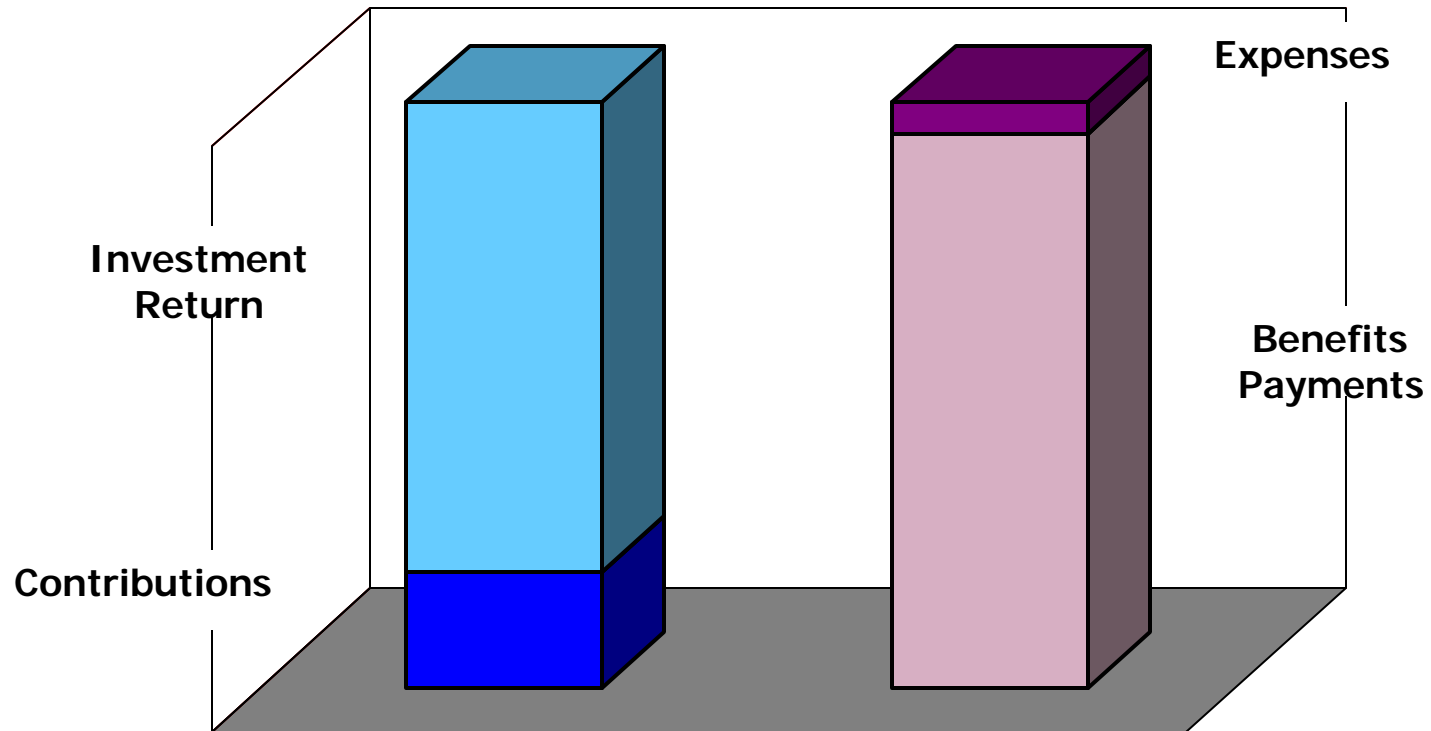
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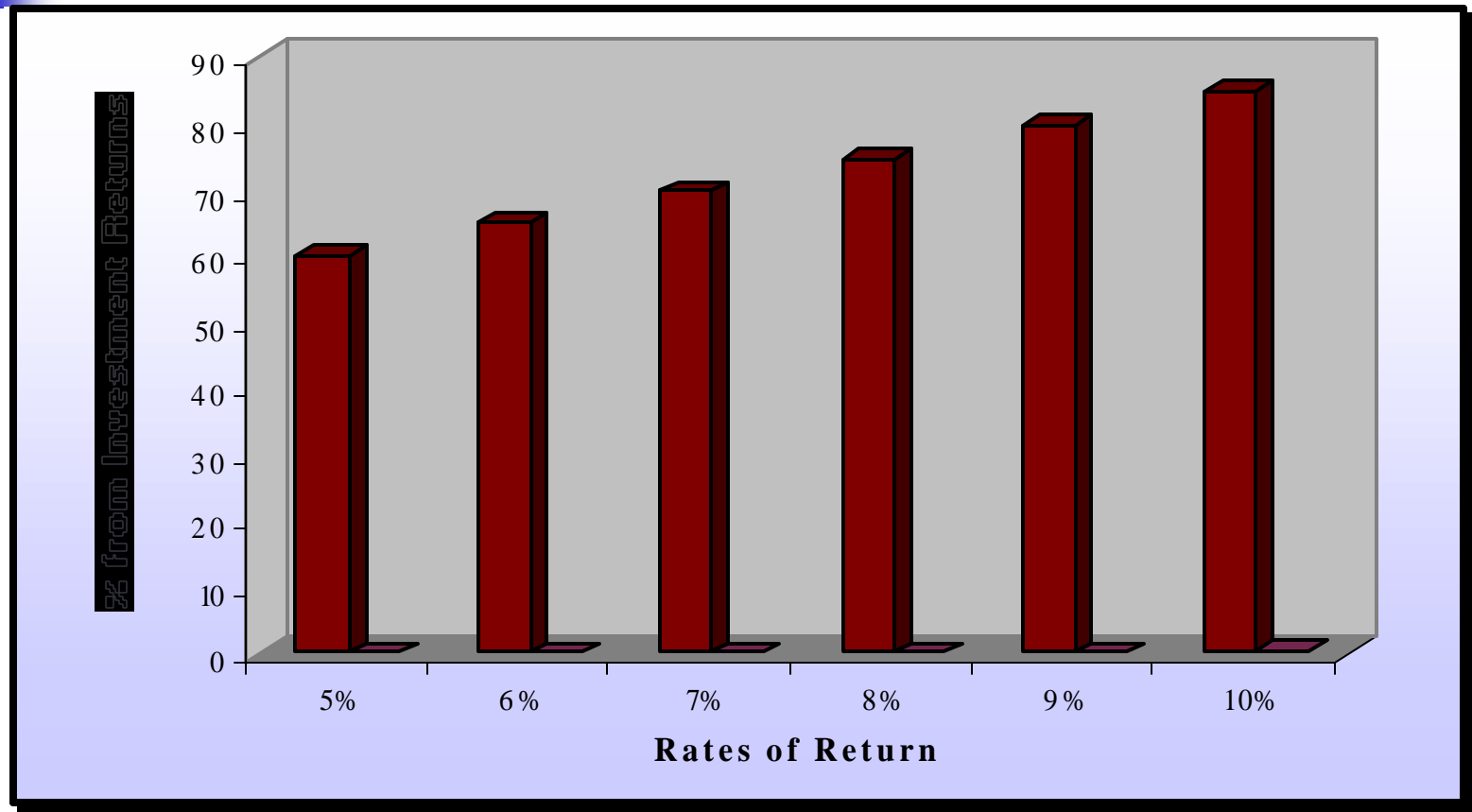


# THE GREAT ACTUARIAL TRUTH

**MONEY IN = MONEY OUT**



## PROPORTION OF PAYMENTS FROM INVESTMENT RETURNS





# No Free Lunch!

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- **C + I = B + E**
- Contributions + Investment Income  
Equals  
Benefit Payments + Expense
- Assumptions and funding methods  
affect only the timing of costs
- “Nobody ever made a benefit payment  
from assumed interest!”



# SO WHAT HAPPENED???

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- Why are public retirement system funding ratios declining while the equity and bond markets had a very good year in 2003 after recovering from the 2000-2002 Bear Market?



# THE POLITICS OF THE PERFECT STORM

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- 36 month Bear Market (4/2000-3/2003)
- New and enhanced retirement benefits
- Budget deficits
- Market Stabilization Accounts

# BEAR MARKET

## (April 2000- March 2003)

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- After the Dow hit a low of 777 in 1982, it soared to 11,722.98 in January 2000.
- NASDAQ peaked at 5,048.62 in March 2000.
- The equity markets then tanked for the next 36 months.
- Equity markets rallied between April 1, 2003 – March 31, 2004.
  - S & P 500 +35.1%
  - Russell 2000 +63.8%
  - MSCI EAFE Index +58.1%
  - MSCI EM Free Index +82.2%



# Increased and Enhanced Retirement Benefits



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- State and Local Government employees got new and enhanced benefits (known as 3% at 50 for Safety, 2% at 55 for General Members).
- Governor/ State Legislature considered it a win-win situation. Give Public Employee Unions what they wanted at “no cost to the taxpayer.”
- Increased pension costs would be paid for by “market gains.”
- We were in a new paradigm where markets only go up.
  - DOW 35,000 by 2010
  - NASDAQ 10,000



## Retirement Benefits, cont.

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- Little did they know a Bear Market was lurking around the corner.
- Retirement costs up 300%-400% or more for most governmental entities since 2000, and will continue to increase.
- Must Read: “So, How Did We Get There? The Fantasy World of Retirement Benefits” by Tom Branan (CPER No. 158, February 2003)

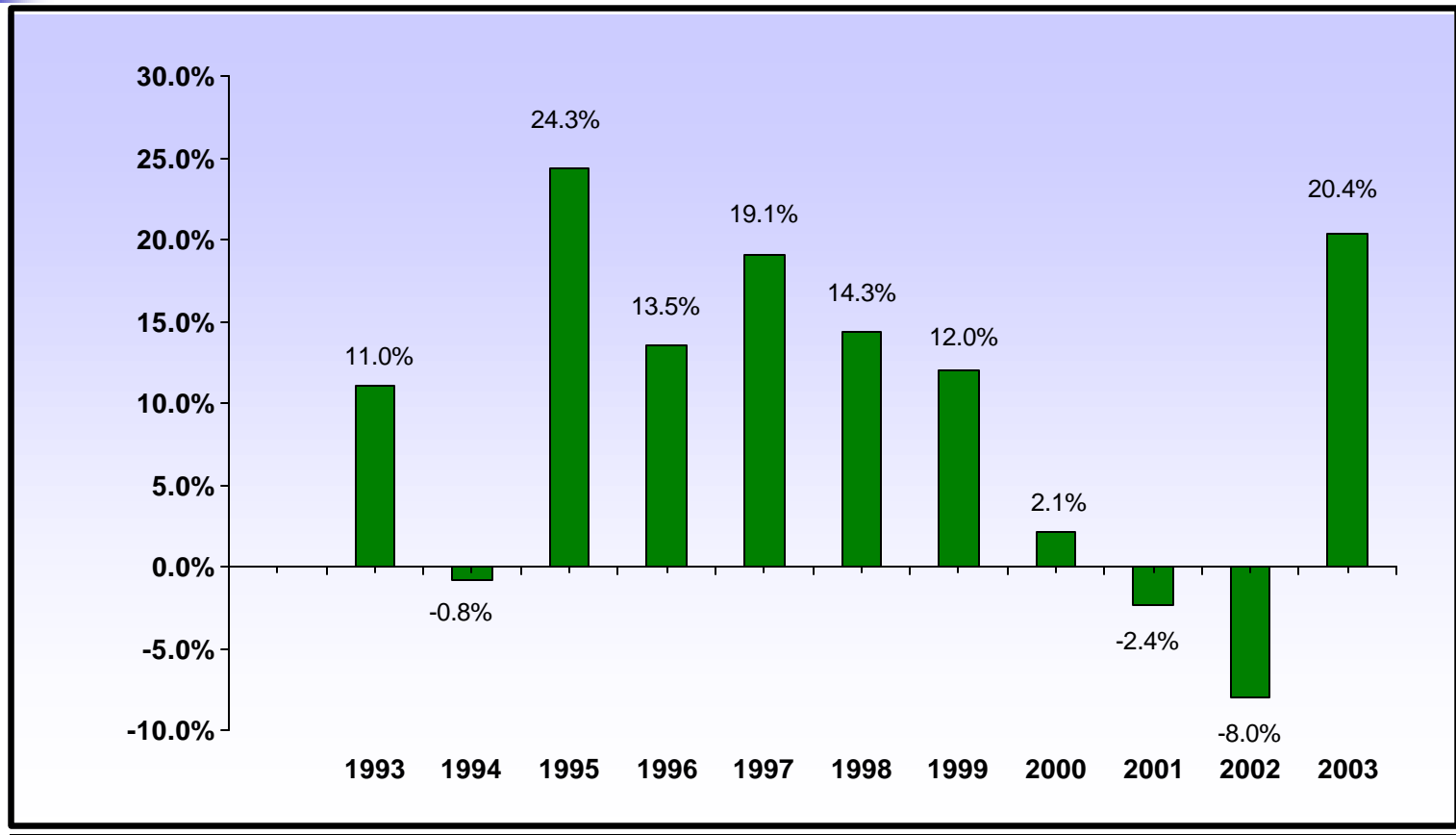


# BUDGET DEFICITS

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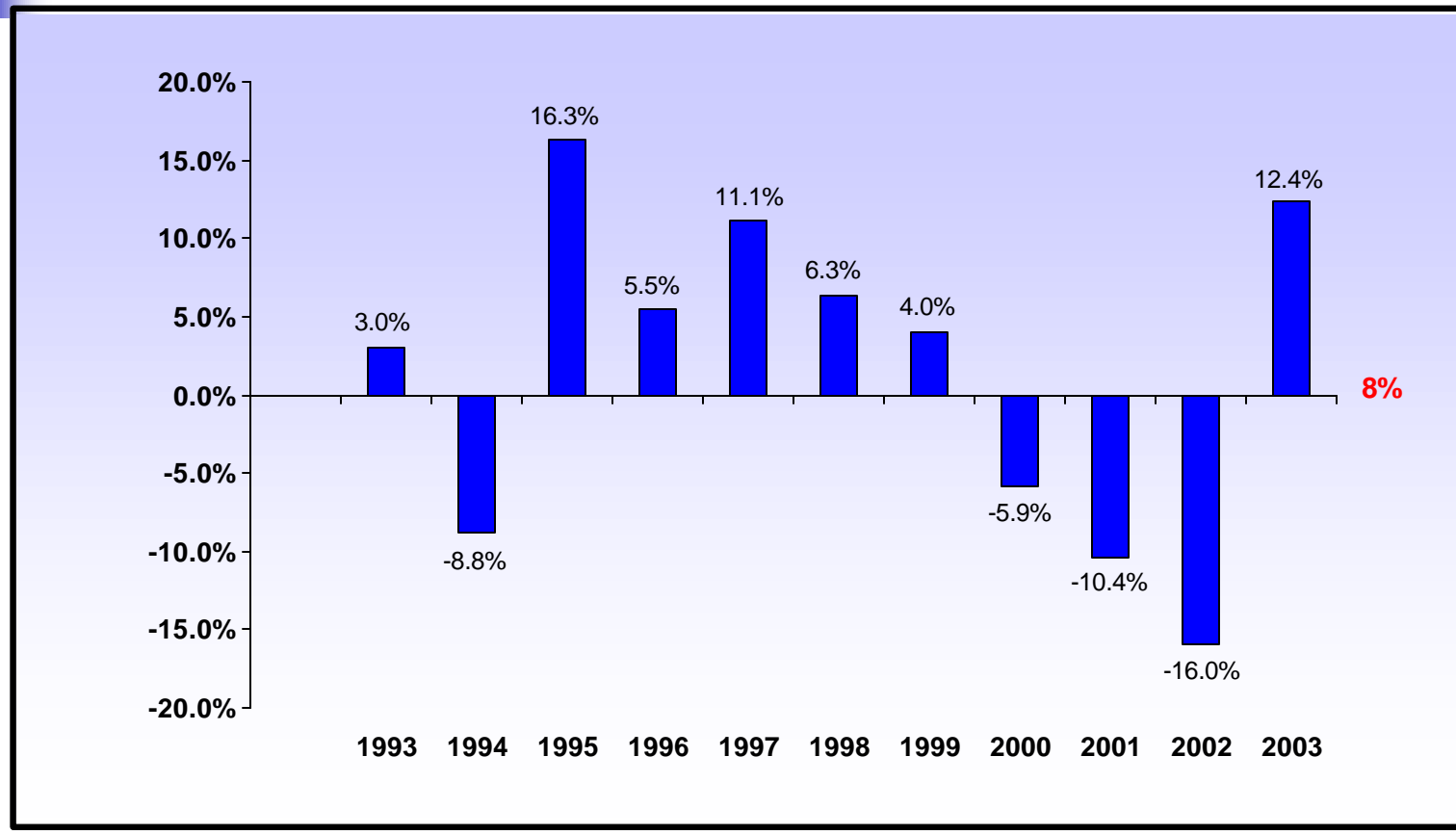
- California experienced a high tech windfall in personal income taxes in 2000/2001 (One time Revenues).
- The State Income Tax is very progressive.
- Budget surplus used to create and expand new and existing programs (Ongoing Expenditures).
- When tax revenues plunged, Governor and Legislature unwilling to make serious budget cuts.
- State budget balanced by borrowing, using creative financial and accounting gimmicks, and taking revenues from local government.

## MEDIAN PUBLIC FUND RATE OF RETURN 1993 - 2003



# EXCESS GAIN/LOSS ASSUMING 8% ANNUAL INVESTMENT RETURN

## MEDIAN PUBLIC FUND RETURN 1993 - 2003





# Market Stabilization Account

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- Retirement systems use a Market Stabilization Account to smooth gains and losses.
- Using Market Value of assets is too volatile.
- Smooths gains/losses over/below the assumed investment rate.
- Smooth over  $n$  years,  $n = 3, 4, \text{ or } 5$ .
- 5 year smoothing normally matches the economic cycle. GASB recommends 5 years.
- Takes 10% of the gain/loss into income for current 6 month period and spreads remaining 90% over the next nine 6 month periods.
- Results in more level contribution rates.



# MVA and AVA

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- When the Market Value of Assets (MVA) scores, the Actuarial Value of Assets (AVA) is less than the Market Value of Assets.
  - MVA is greater than AVA - puts off recognizing gains.
  - Pretend we have less money than we really have.
  - This is commonly referred to as “prudent fiduciaries.”

# CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

## MARKET STABILIZATION DESIGNATION (DEFERRED RETURN) as of June 30, 1999

### I. Deferred amounts:

Amount to be applied to:

From Period:	Remaining Amount	Dec 1999	2000	2001	2002	2003
THRU 12/94	\$ (3,258,953)	(3,258,953)				
Jun-95	\$ 20,542,385	20,542,385				
Dec-95	\$ 9,047,765	4,523,883	4,523,883			
Jun-96	\$ 11,718,084	3,906,028	7,812,056			
Dec-96	\$ 29,933,625	7,483,406	14,966,813	7,483,406		
Jun-97	\$ 77,738,346	15,547,669	31,095,338	31,095,338		
Dec-97	\$ 46,093,253	7,682,209	15,364,418	15,364,418	7,682,209	
Jun-98	\$ 100,070,622	14,295,803	28,591,606	28,591,606	28,591,606	
Dec-98	\$ (12,319,397)	(1,539,925)	(3,079,849)	(3,079,849)	(3,079,849)	(1,539,925)
Jun-99	\$ 79,184,449	8,798,272	17,596,544	17,596,544	17,596,544	17,596,544
	<u>\$ 358,750,179</u>	<u>\$ 77,980,777</u>	<u>\$ 116,870,808</u>	<u>\$ 97,051,464</u>	<u>\$ 50,790,510</u>	<u>\$ 16,056,620</u>

### II. Unrestricted Designation

Per June 30, 1999 F/S \$ 110,858,692

### III. Current (Preliminary) Contingency Balances

Per June 30, 1999

Statutory Contingency Designation (1%) \$ 28,372,552

#### Board Designated Contingency

Board Designated (1%) \$ 28,372,552

Paulson-Walden Settlement Designation \$ 90,000,000

Excess Earnings from December 31, 1997 \$ 25,659,582

Excess Earnings from December 31, 1998 \$ 47,619,362

**TOTAL \$ 191,651,496**





# MVA and AVA, cont.

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- When the MVA tanks, AVA is greater than MVA
  - **AVA is greater than MVA - puts off recognizing losses.**
  - **We pretend we have more money than we really have.**
  - **This is commonly regarded as “funny money.”**
  - **During 2001-2002 retirement systems who were increasing benefits did so with “funny money.”**

**CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**MARKET STABILIZATION ACCOUNT (DEFERRED RETURN) as of December 31, 2001**

**I. Deferred amounts:**

Amount to be applied to:

<u>From Period:</u>	<u>Remaining Amount</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Dec-97	\$ 7,682,209	7,682,209				
Jun-98	\$ 28,591,606	28,591,606				
Dec-98	\$ (4,619,774)	(3,079,849)	(1,539,925)			
Jun-99	\$ 34,668,322	17,334,161	17,334,161			
Dec-99	\$ 38,553,830	15,421,532	15,421,532	7,710,766		
Jun-00	\$ (54,810,909)	(18,270,303)	(18,270,303)	(18,270,303)		
Dec-00	\$ (100,257,678)	(28,645,051)	(28,645,051)	(28,645,051)	(14,322,525)	
Jun-01	\$ (166,713,385)	(41,678,346)	(41,678,346)	(41,678,346)	(41,678,346)	
Dec-01	\$ (168,542,546)	(37,453,899)	(37,453,899)	(37,453,899)	(37,453,899)	(18,726,950)
	<u>\$ (385,448,325)</u>	<u>\$ (60,097,941)</u>	<u>\$ (94,831,831)</u>	<u>\$ (118,336,833)</u>	<u>\$ (93,454,771)</u>	<u>\$ (18,726,950)</u>

**II. Unrestricted Designation**

Per December 31, 2001 F/S \$ 87,740,871

**III. Current Contingency Balances**

Per December 31, 2001

Statutory Contingency Designation (1%)	<u>\$ 27,683,923</u>
<u>Board Designated Contingency</u>	
Additional Designated (1%) per Board policy	\$ 27,683,923
Paulson Settlement Designation	\$ 53,087,977
Excess Earnings from December 31, 1998	\$ 30,133,228
Excess Earnings from December 31, 1999	\$ 188,291,500
Excess Earnings from December 31, 2000	\$ 98,407,865
<b>TOTAL</b>	<u><b>\$ 397,604,493</b></u>

**IV. Excess Earnings Detail**

Unrestricted @ 12/31/01	\$ 87,740,871
Excess from 12/31/98	\$ 30,133,228
Excess from 12/31/99	\$ 188,291,500
Excess from 12/31/00	\$ 98,407,865
<b>SUBTOTAL:</b>	<u><b>\$ 404,573,464</b></u>
 "Transfers Discussed"	
Excess earnings transfer policy (7/1/02 - 12/31/02)	\$ (22,989,000)
3% @ 50, 2% @ 55 (Sept 18, 2001 minutes)	\$ (100,000,000)
(\$200 Retiree/\$120 Survivor) SB795 (amt estimated)	\$ (23,200,000)
<b>TOTAL:</b>	<u><b>\$ 258,384,464</b></u>

# CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

## MARKET STABILIZATION ACCOUNT (DEFERRED RETURN) as of December 31, 2002

FINAL

I. Deferred amounts		Amount to be applied to:				
From Period:	Remaining Amount	2003	2004	2005	2006	2007
Dec-98	\$ (1,539,925)	(1,539,925)				
Jun-99	\$ 17,334,161	17,334,161				
Dec-99	\$ 23,132,298	15,421,532	7,710,766			
Jun-00	\$ (36,540,606)	(18,270,303)	(18,270,303)			
Dec-00	\$ (71,612,627)	(28,645,051)	(28,645,051)	(14,322,525)		
Jun-01	\$ (125,035,039)	(41,678,346)	(41,678,346)	(41,678,346)		
Dec-01	\$ (131,088,647)	(37,453,899)	(37,453,899)	(37,453,899)	(18,726,950)	
Jun-02	\$ (185,907,125)	(46,476,781)	(46,476,781)	(46,476,781)	(46,476,781)	
Dec-02	\$ (242,156,379)	(53,812,529)	(53,812,529)	(53,812,529)	(53,812,529)	(26,906,264)
	<u>\$ (753,413,889)</u>	<u>\$ (195,121,141)</u>	<u>\$ (218,626,143)</u>	<u>\$ (193,744,081)</u>	<u>\$ (119,016,259)</u>	<u>\$ (26,906,264)</u>

Current Contingency Balances	
Statutory Contingency Designation (1%)	\$ 26,824,217
Additional Designated (1%) per Board policy	\$ 26,824,217
	<u>\$ 53,648,434</u>

# CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

## MARKET STABILIZATION ACCOUNT (DEFERRED RETURN) as of June 30, 2003

REVISED FINAL

REVISED FINAL

### I. Deferred amounts

Amount to be applied to:

From Period:	Remaining Amount	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Jun-99	\$ 8,667,081	8,667,081				
Dec-99	\$ 15,421,532	7,710,766	7,710,766			
Jun-00	\$ (27,405,455)	(9,135,152)	(18,270,303)			
Dec-00	\$ (57,290,101)	(14,322,525)	(28,645,051)	(14,322,525)		
Jun-01	\$ (104,195,866)	(20,839,173)	(41,678,346)	(41,678,346)		
Dec-01	\$ (112,361,697)	(18,726,950)	(37,453,899)	(37,453,899)	(18,726,950)	
Jun-02	\$ (162,668,734)	(23,238,391)	(46,476,781)	(46,476,781)	(46,476,781)	
Dec-02	\$ (215,250,115)	(26,906,264)	(53,812,529)	(53,812,529)	(53,812,529)	(26,906,264)
Jun-03	\$ 114,484,179	12,720,464	25,440,929	25,440,929	25,440,929	25,440,929
	<u>\$ (540,599,176)</u>	<u>\$ (84,070,143)</u>	<u>\$ (193,185,214)</u>	<u>\$ (168,303,152)</u>	<u>\$ (93,575,331)</u>	<u>\$ (1,465,336)</u>

### Current Contingency Balances

Statutory Contingency Designation (<1%)	\$ 27,966,830
Additional Designated (1%) per Board policy	\$ -
	<u>\$ 27,966,830</u>

1% would be \$33,527,796

REVISED FINAL



# CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

## MARKET STABILIZATION ACCOUNT (DEFERRED RETURN) as of December 31, 2003

REVISED FINAL

REVISED FINAL

### I. Deferred amounts

Amount to be applied to:

From Period:	Remaining Amount	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
Dec-99	\$ 7,710,766	7,710,766				
Jun-00	\$ (18,270,303)	(18,270,303)				
Dec-00	\$ (42,967,576)	(28,645,051)	(14,322,525)			
Jun-01	\$ (83,356,693)	(41,678,347)	(41,678,347)			
Dec-01	\$ (93,634,748)	(37,453,899)	(37,453,899)	(18,726,950)		
Jun-02	\$ (139,430,344)	(46,476,781)	(46,476,781)	(46,476,781)		
Dec-02	\$ (188,343,851)	(53,812,529)	(53,812,529)	(53,812,529)	(26,906,264)	
Jun-03	\$ 101,763,714	25,440,929	25,440,929	25,440,929	25,440,929	
Dec-03	\$ 219,223,254	48,716,279	48,716,279	48,716,279	48,716,279	24,358,139
	<u>\$ (237,305,781)</u>	<u>\$ (144,468,936)</u>	<u>\$ (119,586,874)</u>	<u>\$ (44,859,053)</u>	<u>\$ 47,250,943</u>	<u>\$ 24,358,139</u>

### Current Contingency Balances

Statutory Contingency Designation (<1%)	\$ -
Additional Designated (1%) per Board policy	\$ -
	<u>\$ -</u>

1% would be \$40,758,398

CONTRA TRACKING ACCOUNT BALANCE (CTA) IS \$ (16,742,131)

REVISED FINAL



# Dealing with a growing UAAL

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- Responsibility of the Sponsoring Agency
- Being amortized over a period of up to 30 years
- Accrues interest at the assumed investment rate (8%)
- Is there a way to create some budget savings?



# PENSION OBLIGATION BONDS (POBs)

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- Concept involves financing a lump sum payment to the Retirement Association in an amount equal to, or less than, the Sponsoring Agency's Unfunded Actuarial Accrued Liability (UAAL).
- The lump sum payment is financed through the issuance of taxable bonds, with the Sponsoring Agency essentially replacing its “annual unfunded pension obligation payment” with annual debt service on the bonds.

# Pension Obligation Bonds- cont.



- The goal is for the taxable bond rate to be lower than the retirement system's assumed investment rate.
  - Pay less on the POBs than the retirement system would have charged on the UAAL, and
  - Pay less on the POBs than the retirement system earns.
- POBs are issued by the sponsoring agency. The retirement system is not liable for the bonds.





# **POB #1: On February 1, 1994 the County issued \$337,365,000 Taxable Pension Obligation Bonds**

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- Paid off the County's UAAL to CCCERA, but increased the County's outstanding debt by \$337.4 million.
- Achieved a potential interest savings of 127 b.p.
  - $TIC = 6.73\%$
  - Assumed Investment rate = 8.0%

# POB Issued Feb. 1, 1994- cont.



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- Over the life of the bond issue, approximate savings = \$60.6 million. Present value (in 1994) of total savings = \$30.3 million.
- Savings assume CCCERA earns its assumed investment rate and that the 8% rate is constant over the life of the POBs.



# CCCERA Returns Over the Past 9 Years\*

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■ 1995	17.2%	2000	11.2%
■ 1996	17.3%	2001	-2.8%
■ 1997	22.3%	2002	-6.2%
■ 1998	19.1%	2003	5.2%
■ 1999	13.7%		
■ CCCERA Return for the 9 years ending June 30, 2003	= 10.4%		

\* Year ended June 30

# POB #2: \$107,005,000 POB

## Refunding Series 2001

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- County decided to restructure about one-third of the 1994 POBs through a tender offer.
- Lengthened the amortization schedule to a final maturity date of 2014 from 2011 to achieve a more level annual debt service pattern.
- Restructured POBs had a TIC of 6.23% (Original 1994 POBs had a TIC of 6.73%).
- Resulted in a net present value savings of \$2,578,000 plus \$8 million up front cash payment to the County.



# SITUATION IN FALL, 2002

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- Long and short term interest rates going down.
- CCCERA had a UAAL of \$487 million of which \$319 million was the responsibility of the County (discussed more below).
- STATE BUDGET CRISIS underway, with major potential reductions in state funding for counties.
- County faced a \$50 million shortfall in FY 2003/2004 Budget.

# SITUATION IN FALL, 2002- cont.



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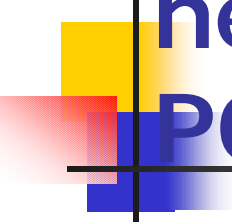
- New UAAL had emerged over the past several years due to:
  - Impact of 1997 Ventura decision and Paulson settlement
  - Increased compensation and retirement benefits to employees
    - 3% at 50 for Safety employees (from 2% at 50), up 50%
    - 2% at 55 for General employees (from 1.67% at 55), up 20%
  - Revised actuarial assumptions regarding composition of County workforce and retirees.



# SITUATION IN FALL, 2002- cont.

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- Pension Costs exceed \$100 million per year of which 50% is net county cost.
- Where to find budget savings???



# **POB #3: County decided to issue new POBs: \$322,710,000 Taxable POB Series 2003 A (April 2003)**

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- As with prior POBs, key objective was for CCCERA portfolio to earn, at minimum, a rate above the POB bond yield over the life of the POBs if POBs were to be issued.
- Paid off the County's UAAL to CCCERA, but increased outstanding County debt by \$322.7 million.





# POB Series 2003 A- continued

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- Achieved a potential interest savings of 264 b.p.
  - $\text{TIC} = 5.36\%$
  - Assumed Investment Rate = 8.0%
- Over the life of the bond issue, approximate savings = \$112.8 million. Present value of total savings = \$73 million.
- Savings assume CCCERA earns its assumed investment rate and that the rate stays constant over the life of the POBs.



# SO HOW HAS CONTRA COSTA COUNTY DONE?

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- Initial Results- so far, so good.....
  - CCCERA's 9 year return = 10.4% vs. an 8% assumed investment rate
  - Issuing POB's have resulted in budget savings to the County
- But what will happen over the next 20 years???

# AND WHAT EVIL LURKS NEXT?



- UAAL expected to increase due to recognition of market losses suffered during 2000-2002.
  - Actuarial smoothing of these losses from the Market Stabilization Account started in FY03/04 and will continue to at least FY 06/07.
  - Potential County “hit”: \$410 million.
  - The “hit” will be reduced if CCCERA earns more than 8%, but earnings rate will have to be about 17.5% for the next five years to offset the hit.
  - Virtually all public agency retirement systems in California are about to get “hit.”

# IMPORTANT THINGS TO REMEMBER



- Issuing POBs does not extinguish any debt. It transfers the UAAL of the retirement system to the balance sheet of the sponsoring agency. Pension bonds simply recast a footnoted contingent liability into on-balance sheet debt.
- Remember: Retirement expense = POB debt payments PLUS annual contributions to the retirement system.



# Important Things to Remember- continued

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- POB issuance is a form of risk arbitrage. Bond proceeds are invested in an asset allocation model that would ideally earn the retirement system's assumed investment rate, and at a minimum, a return that will exceed the POB borrowing costs.
  - Failing to earn the assumed investment rate will contribute to new unfunded liabilities on top of the POB debt service costs.



# Important Things to Remember- continued

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- Conversely, over performance of pension fund earnings vs. actuarial assumed investment rate may generate excess earnings, which can tempt sponsoring agencies to approve a new round of benefit increases rather than pay down the POBs that provided the pension assets in the first place.
- TIMING IS EVERYTHING- Those that issued POBs in 1994/1995 and then 2003, just as the market took off, or 1999, just before the market headed down, (Example: Pittsburgh, PA). Remember, lump sum POB proceeds concentrate investment risk.



# Important Things to Remember- continued

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- It may be prudent to establish an excess earnings policy between sponsoring agencies and Retirement Board of Trustees for earnings over the assumed investment rate attributed to the POBs. Higher earnings above the assumed investment rate may produce an overfunded fund and could result in the approval of new, increased retirement benefits that are costly to maintain.



# Important Things to Remember- continued

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- As the TIC increases for the POB issue, the cost/benefit decreases

Example: What would you rather have?

Assumed Investment Rate = 8%

- TIC = 5.36%

OR

- TIC = 6.50%





# THE BOTTOM LINE

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- You will never know the actual gain/loss from issuing POBs until the last bond pays off.
- POBs are a risk management tool, but should not be entered into until all risk elements have been vetted and management is comfortable taking the risk.



# SUGGESTED READING

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- “Pension Obligation Bonds: Were they a Good Bet?”,  
“Public Finance Criteria; Public Pension Funds”,  
“Credit FAQ: Public Pension Funds”, and “Pension  
Obligation Bonds are Surging After Brief Hiatus”
  - By: Parry Young and Steven J. Murphy
  - Standard & Poor’s
- “Risky Business? Evaluating the Use of Pension  
Obligation Bonds”
  - By: James B. Burnham
  - Government Finance Review, June 2003



# SUGGESTED READING- continued

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- “State Finances: Pension Bonds A Risky Cop-Out”
  - By: James H. Smalhout
  - Los Angeles Times, June 29, 2003
  
- “States Risk Bigger Losses to Fund Pensions”
  - By: Mary Williams Walsh
  - New York Times, October 12, 2003



# SUGGESTED READING- continued

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- “Bad News Bear” Investment markets can falter. When they do, pension bonds can become a very risky business

- By: Penelope Lemov
- Governing Magazine, November 2003

## **“Questions to Consider Before Issuing Pension Obligation Bonds”**

- By: Gabriel, Roeder, Smith & Co., February 2004

